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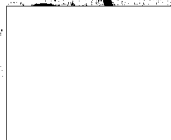
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of members of one sex which are not imposed upon members of the other sex.

(b) *Benefits.* A recipient which provides any compensation, service, or benefit to members of one sex pursuant to a State or local law or other requirement shall provide the same compensation, service, or benefit to members of the other sex.

#### § 42.759 Advertising.

A recipient shall not in any advertising related to employment indicate preference, limitation, specification, or discrimination based on sex unless sex is a bona-fide occupational qualification for the particular job in question.

#### § 42.760 Pre-employment inquiries.

(a) *Marital status.* A recipient shall not make pre-employment inquiry as to the marital status of an applicant for employment, including whether such applicant is "Miss" or "Mrs."

(b) *Sex.* A recipient may make pre-employment inquiry as to the sex of an applicant for employment, but only if such inquiry is made equally of such applicants of both sexes and if the results of such inquiry are not used in connection with discrimination prohibited by this subpart.

#### § 42.761 Sex as a bona-fide occupational qualification.

A recipient may take action otherwise prohibited by §§ 42.751-42.761 provided it is shown that sex is a bona-fide occupational qualification for that action, such that consideration of sex with regard to such action is essential to successful operation of the employment function concerned. A recipient shall not take action pursuant to this section which is based upon alleged comparative employment characteristics or stereotyped characterizations of one or the other sex, or upon preference based on sex of the recipient, employees, students, or other persons, but nothing contained in this section shall prevent a recipient from considering an employee's sex in relation to employment in a locker room or toilet facility used only by members of one sex.

#### Procedures

##### § 42.771 Interim procedures.

For the purposes of implementing this subpart, the procedural provisions applicable to Title VI of the Civil Rights Act of 1964 are hereby adopted and incorporated herein by reference. These procedures may be found at 28 CFR 42.106-.111.

#### Appendix

Programs covered by title IX include, but are not limited to, the following:

1. Citizenship Education and Training. 8 U.S.C. 1443(b).
2. Law Enforcement Assistance—Advanced Police Training. 42 U.S.C. 3774.
3. Law Enforcement Assistance—FBI Crime Laboratory Support. 5 U.S.C. 301 and 42 U.S.C. 3774.
4. Law Enforcement Assistance—FBI Field Police Training. 42 U.S.C. 3774.
5. Law Enforcement Assistance—FBI Fingerprint Identification. 28 U.S.C. 534.
6. Law Enforcement Assistance—Uniform Crime Reports. 28 U.S.C. 534.
7. Corrections—Training and Staff Development. 18 U.S.C. 4351-4353.
8. Corrections—Research and Evaluation. 18 U.S.C. 4351-4353.
9. Drug Enforcement Administration. 21 U.S.C. 872-73, 1004.

[FR Doc. 80-17436 Filed 6-18-80; 8:45 am]

BILLING CODE 4110-01-M

#### DEPARTMENT OF LABOR

##### Occupational Safety and Health Administration

##### 29 CFR Part 1910

[Docket No. S-012]

##### **Standard for Locking Out and Tagging Machines, Equipment, Systems and Processes, Advance Notice of Proposed Rulemaking**

**AGENCY:** Occupational Safety and Health Administration, U.S. Department of Labor.

**ACTION:** Advance notice of proposed rulemaking.

**SUMMARY:** This notice announces the intention of the Occupational Safety and Health Administration (OSHA) to commence a rulemaking proceeding to establish lockout and tagging requirements for machines, equipment, systems and processes, to protect employees from injuries caused by failure to lock out and tag movable, electrically energized or pressurized equipment and systems, or systems containing hazardous materials, during the installation, repair, maintenance, and servicing of the equipment or system. This notice also supplements the "Notice of Request for Information" published by the National Institute for Occupational Safety and Health (NIOSH) at 45 FR 7006 on January 31, 1980. As used in this notice, lockout is defined as a method or device which ensures deactivation of machinery, equipment, systems or processes while installation, repair, servicing and maintenance activities are being performed, and prevents reactivation

under conditions that would be hazardous.

This notice responds to petitions received from national consensus organizations requesting the Agency to adopt their standards containing lockout provisions; comments received in connection with issues raised by OSHA in the Federal Register publication, "Machinery and Machine Guarding, Request for Information," at 42 FR 1741 on January 7, 1977; a petition for a lockout standard from the International Union, United Automobile, Aerospace and Agricultural Implements Workers of America (UAW); and data made available to OSHA by trade associations the insurance industry, professional societies and labor unions.

OSHA solicits information and comments on the issues raised in this advance notice and any other pertinent information that will aid in the development of a proposed standard. Comments regarding injury data, safety benefits to be derived from implementation of such a standard, and the projected costs of compliance are also requested. Information submitted in response to the January 31, 1980 NIOSH request need not be resubmitted to OSHA because the two agencies will share submissions.

**DATES:** All comments on this notice should be received by September 15, 1980.

**ADDRESS:** All comments should be submitted in quadruplicate to the Docket Officer, Docket No. S-012, Occupational Safety and Health Administration, U.S. Department of Labor, Room S-6212, 200 Constitution Avenue, N.W., Washington, D.C. 20210, (202) 523-7894. Comments received will be available for public inspection and copying at the above location.

**FOR FURTHER INFORMATION CONTACT:** James Scully or Pat Cattafesta, Office of Mechanical Engineering Safety Standards, Occupational Safety and Health Administration, Room N-3506, U.S. Department of Labor, Washington, D.C. 20210, (202) 523-7202.

**SUPPLEMENTARY INFORMATION:** The Occupational Safety and Health Administration intends to develop a proposal establishing lockout and tagging requirements for all machines, equipment, systems and processes covered by the General Industry Standards, 29 CFR Part 1910. Any rulemaking would be intended to protect employees from injuries caused by failure to deactivate and prevent reactivation of movable, electrically energized or pressurized equipment or systems, or systems involving hazardous materials while employees are

performing work on the equipment or system. Examples of lockout-related provisions in the General Industry Standards (29 CFR Part 1910) are found in the following sections:

1910.145(f)(1)(i), 1910.145(f)(3)(iii), 1910.179(g)(5)(i), 1910.179(g)(5)(ii), 1910.179(g)(5)(iii), 1910.213(b)(3), 1910.213(b)(5), 1910.218(a)(3)(iii), 1910.218(a)(3)(iv), 1910.218(d)(2), 1910.218(f)(1), 1910.218(f)(2), 1910.218(g)(2), 1910.218(g)(5), 1910.218(h)(2), 1910.218(j)(1), 1910.261(b)(4), 1910.262(c)(1), 1910.262(n)(2), 1910.262(p)(1), 1910.263(l)(3)(iii)(b), 1910.263(l)(8)(iii), 1910.265(c)(12)(v), and 1910.265(c)(26)(v).

A generic regulation would add new material and consolidate lockout-related provisions into one document. The existing provisions are not uniform in their coverage, and may be outdated, incomplete, and ineffective. The proposed lockout and tagging requirements would be expected to remedy these shortcomings.

In 1977, OSHA published "Machinery and Machine Guarding, Request for Information" (42 FR 1741, January 7, 1977); two sections of this request addressed lockout problems. NIOSH also published a "Notice of Request for Information" (45 FR 7006, January 31, 1980), which asked for general information on lockout and tagging procedures to aid in developing criteria for NIOSH's recommendations for occupational safety and health standards. OSHA, however, requires more specific and detailed information than has been received in response to these requests to prepare a proposal. OSHA and NIOSH are coordinating their information-gathering efforts, and all comments submitted to NIOSH will be available to OSHA. However, if more specific information than has previously been submitted to NIOSH is available, it should be submitted to OSHA. OSHA is requesting information on lockout and tagging requirements for the construction industry in a separate advance notice of proposed rulemaking published today.

The need for a lockout and tagging regulation is supported by injury and fatality data from several sources. A recent study made by OSHA's Division of Statistical Studies showed that 59 of 125 fatalities in the fixed-machine category for the 1974-1976 period were related to failure to deenergize and lock out equipment. OSHA's analysis of the 22 accident cases reported by the UAW in connection with its petition for a lockout standard showed that these accidents involved workers from a variety of skilled trades and occurred in

situations in which lockout procedures were either inadequate, non-existent, or not observed. A review by the Bureau of Labor Statistics (BLS) of workers' compensation first reports of injury identified a substantial number of incidents that were lockout-related and sufficiently serious to be classified as lost workday cases. The BLS is presently compiling detailed information to aid in a more comprehensive evaluation of lockout-related injuries.

Even as early as 1970, an article in the *American Society of Safety Engineers Journal* pointed out that there had been a significant change in the causes of machine accidents. This shift can be accounted for by the use of modern machines that incorporate the latest developments in hydraulics, pneumatics, and electronics, including such kinetic-energy-producing components as solenoids and air or hydraulic cylinders. This article also noted that the hazards associated with high-voltage currents, high-pressure pneumatic and hydraulic systems and high-speed equipment have not been adequately recognized or controlled. A more recent article (*National Safety News*, December 1975) emphasized that many accidents are caused by the release of stored (potential) energy within equipment which has only been electrically locked out. Thus, the failure to use more comprehensive lockout procedures with complex equipment has caused an increase in the number of accidents involving maintenance and operating personnel.

To deal with the safety challenges posed by these sophisticated machines and processes, procedures based on recent lockout concepts, Zero Mechanical State (ZMS) and Zero Energy State (ZES), have been developed. ZMS is the condition in which the possibility of unexpected mechanical movement of a machine has been reduced to a minimum; ZES is the condition in which any source of energy, active or latent, has been blocked off in a machine, process or system. ZMS procedures are being extended to ZES programs, such as those recently advocated by the UAW in a petition to OSHA asking the Agency to promulgate a lockout standard. ZES extends lockout and tagging procedures to radiation, chemical, and thermal processes by requiring that servicing and maintenance procedures take the total energy of each system into account, thus eliminating the possibility of a sudden or unintended release of energy. ZES also requires that a comprehensive maintenance and servicing plan be written for each machine, unit of

equipment, or process within a plant. OSHA is particularly interested in receiving comments on the appropriate application and use of ZES and other control procedures.

Since existing lockout coverage does not provide sufficient protection, OSHA intends to address the entire range of lockout and tagging problems, from simple electrical machine lockout to ZES procedures, in a single generic standard.

OSHA must address two broad issues in the development of a generic lockout and tagging proposal. The first concerns the effectiveness of potential regulatory alternatives in reducing lockout-related hazards in general industry, and the second involves determining the regulatory impact of these alternatives on the affected industries. The Agency requests responses to the questions below to aid in the development of a lockout and tagging proposal and to evaluate the technological and economic impact of such a standard.

1. Lockout-related provisions in 29 CFR Part 1910 (see above) do not provide sufficient protection from the lockout hazards associated with the mechanical, electrical, potential energy and hazardous material exposures found in general industry, is there an alternative to promulgating such a regulation that would provide equivalent employee protection?

2. (a) Should a general lockout and tagging standard designed for general industry apply to electric utility industries engaged in the operation and maintenance of electric power generation, transmission and distribution systems?

(b) Can existing positive lockout methods (locks or devices) used in the offices and repair shops of the electric utilities also be applied to power generation, transmission, and distribution systems?

(c) What control methods are the electric utility industries presently using to protect against lockout-related hazards in power generation, transmission and distribution activities?

(d) What criteria should be used to measure the effectiveness of the methods described in (c)?

(e) What are the problems, if any, associated with the use of these methods?

3. Current OSHA regulations for deenergizing telecommunications equipment and systems during repair and maintenance can be found in sections such as 1910.268(g)(2). Do these requirements adequately address the hazards in the telecommunications industry, or is additional lockout coverage required?

4. The terms "lockout," "tagout," "tagging," "isolation," "deenergize," and "interlock" are used to identify methods and procedure for deactivating equipment and processes. Because of the variety of electrical, mechanical, pneumatic and chemical hazards and processes found in industry, it is important to develop clear definitions of these terms. How should (a) lockout, (b) tagout, (c) tagging, (d) isolation, (e) deenergizing, and (f) interlock be defined?

5. To what extent should electrical interlocks be considered as lockout devices? For example, should the limitations of these devices prohibit their use as the sole means for deenergizing circuits or equipment being maintained or serviced? What additional precautions must be taken if interlocks are used?

6. (a) Identify by name those electrical systems and operations requiring lockout, those requiring tagout, those requiring tagging, and those requiring a combination of locks and tags, and describe what factors determine which control method should be used. For example, how would voltage level, complexity of systems and circuitry, number of employees, and workplace conditions affect the choice of control method?

(b) How and to what extent should removing an isolating-circuit element (fuse), blocking a control switch, or disconnecting motor leads be considered when choosing a control method?

7. (a) Identify by name and explain why certain types of electrical work, operations, and systems cannot be deenergized during maintenance of "troubleshooting" operations.

(b) What steps can be taken to protect employees working on or near energized circuits from shock hazards? What procedures, training, and protective equipment would be appropriate in these situations.

8. (a) Should the specific physical requirements for various types of locks and tags be standardized and applied throughout industry or should they be tailored to the individual facility and left to the employer's discretion?

(b) What color, size, shape, material, or other characteristics of locks, tags, and other devices would it be appropriate to specify in a general lockout standard?

(c) Should certain devices, tags, and symbols be used only for certain operations, equipment and processes?

9. When and how are locks and tags, locks only, or tags only used in the following situations:

(a) To shut down and deenergize an electrical system (specific both the procedure and the system to which it applies);

(b) To verify that a system has been deenergized;

(c) To ensure continuity of the lockout procedure during a shift change or when the person(s) responsible for the procedure are absent from the workplace;

(d) To safeguard employees from the hazards associated with potential (residual) electrical, mechanical, pneumatic, hydraulic, gravity, and spring energy;

(e) To restore electrical circuits and equipment to service once the lockout or tagout is no longer needed; and

(f) To allow for unusual situations, such as removing locks and tags during testing of a system?

Please provide as many examples as possible of unusual lockout situations and procedures.

10. What criteria should be used to determine whether or not cleaning, adjusting, inspecting, minor maintenance and corrections, and in particular setup operations, require lockout procedures? Please comment on the following factors and any others that are relevant:

(a) The time required to accomplish the task;

(b) The need to use power intermittently;

(c) The number of people involved in the task;

(d) The location and visibility of disconnect devices in relation to the employees involved in the work;

(e) The use of machine activating controls, such as an operator mode, control-key, jog and inch device, or two-hand control; and

(f) The use of blocks, chains, clamps or other devices to physically restrain potentially hazardous materials and movable machine components.

11. The diversity and complexity of industrial operations provide management with a correspondingly broad choice of safety training and written materials. Which of the following should be considered, and to what extent, in the development of training and safety programs:

(a) Is there any justification for allowing exceptions to a requirement that every employer provide written lock and tag procedures?

(b) Would a rule requiring a job safety hazard analysis for each piece of equipment be practical? If not, what criteria should be used to determine when this type of analysis is appropriate?

(c) What are the factors that determine the type, extent, and content of a training program dealing with lockout-related hazards? In your answer, consider such factors as informal on-the-job vs. formal training; classroom-group training vs. individual training; and initial training only vs. periodic refresher training.

(d) What are the criteria for evaluating the effectiveness of any training program?

12. Most lockout procedures involving more than one person require each person in the operation to apply and remove his own individual lock. However, group lockout procedures are currently being used which involve a large work force and the use of one lock applied by a supervisor responsible for the safety of all employees in the activity. Are all the people working under the direction of such a supervisor adequately protected by this group procedure? Specify the minimum requirements for such a procedure and define the precise conditions under which this method provides sufficient safety or discuss those situations in which a group procedure has not proven adequate.

13. A thorough lockout procedure requires careful examination of the equipment or process involved to detect and relieve, disconnect, or restrain any potential (residual) energy. For example, blocks or physical restraints can be used to immobilize equipment, grounds may be used to discharge the energy in electrical circuits, and valves may be bled to relieve pressure. What hardware, such as a three-way air valve, is currently available to accomplish these tasks either automatically or manually? What procedures are used to achieve Zero Mechanical State or Zero Energy State?

14. Maintenance operations for process piping systems use valves and other means to control the flow of flammable, hot, toxic, corrosive or pressurized materials and to prevent employee exposure to these hazards.

(a) Is it necessary or practical to lock out: 1) all valves in use? and 2) recessed (in-ground) valves when access to the tool required to activate the valve is restricted, for example when only the mechanic working on the system has access to a T-handled wrench?

(b) If a piping system has been deactivated by locking out the valve controlling the flow of hazardous material to the affected area and the system has been drained and purged, is it also necessary to isolate the section with a blank flange? What general lockout procedures should be followed for working on a piping system without

any valves? What general lockout procedures are applicable to all piping systems?

This document was prepared under the direction of Eula Bingham, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, Washington, D.C. 20210.

This Advance Notice of Proposed Rulemaking is issued under section 6 of The Occupational Safety and Health Act of 1970 (84 Stat. 1593; 29 U.S.C. 655) and Secretary of Labor's Order No. 8-76 (41 FR 25059).

Signed at Washington, D.C., this 6th day of June 1980.

Eula Bingham,  
Assistant Secretary of Labor.

[FR Doc. 80-18199 Filed 6-16-80; 8:45 am]

BILLING CODE 4510-26-M

## 29 CFR Part 1926

[Docket No. S-203]

### Standard for Lockout/Tagout of Machinery and Equipment; Advance Notice of Proposed Rulemaking

**AGENCY:** Occupational Safety and Health Administration, Labor.

**ACTION:** Advance Notice of Proposed Rulemaking.

**SUMMARY:** This notice announces the intention of the Occupational Safety and Health Administration (OSHA) to commence a rulemaking proceeding either to revise the existing provisions of 29 CFR Part 1926 that apply to lockout/tagout procedures in construction or to propose a new generic lockout/tagout standard for construction. Prospective rulemaking action would be intended to protect workers in construction from accidents caused by the failure to lock out powered machinery or equipment during installation, repair, service, or maintenance. As used in this notice, locking out is defined as deactivation of machinery or equipment and ensuring that it cannot be reactivated while work is being performed on the machine or equipment.

At present, construction lockout/tagout rules appear in various subparts of Part 1926; however, many of these provisions may require updating or clarifying. The Agency will determine, based on staff research, public comment, and information received in response to the issues raised by this notice, which regulatory approach is best suited to dealing with lockout-related hazards in construction. OSHA is requesting information on lockout/tagout procedures in general industry in a separate advance notice of proposed rulemaking. The Agency's efforts to

develop lockout regulations both for construction and general industry will be coordinated during the rulemaking process.

This notice also solicits information and comments on the issues raised in this notice, and provides the public an early opportunity to participate in Agency rulemaking. OSHA will share information on this topic with the National Institute for Occupational Safety and Health.

**DATES:** Comments on this notice must be received by September 15, 1980.

**ADDRESS:** Comments and information should be submitted in quadruplicate to the Docket Officer, Docket No. S-203, Occupational Safety and Health Administration, Room S-8212, U.S. Department of Labor, Washington, D.C. 20210, (202) 523-7894.

#### FOR FURTHER INFORMATION CONTACT:

Martin B. Newdorf, Office of Construction and Civil Engineering Safety Standards, Occupational Safety and Health Administration, U.S. Department of Labor, Room N3457, 3rd Street and Constitution Avenue, N.W., Washington, D.C. 20210, (202) 523-8161.

**SUPPLEMENTARY INFORMATION:** The Occupational Safety and Health Administration (OSHA) is evaluating the clarity, adequacy, and comprehensiveness of its rules for lockout/tagout procedures in the construction industry. The Agency recognizes that there may be areas where current technology has surpassed existing requirements, with the result that the present lockout/tagout standards may no longer be an effective means of providing employee safety as intended by the Act. This notice reaffirms the Agency's commitment to a common sense approach in bringing existing standards up to date with current technology, and emphasizes the unique nature of the construction industry.

Any proposed standard developed as a result of this notice would be intended to protect employees in the construction industry from those accidents caused by the failure to deactivate and prevent reactivation of machinery or equipment while the machine or equipment is being installed, serviced, repaired, or maintained. The Construction Advisory Committee will review any lockout/tagout proposal developed for the construction industry. Any regulation subsequently promulgated would apply to mechanical, hydraulic, electrical, pneumatic, potential energy and chemical hazards associated with the wide range of machinery and equipment found in the construction industry.

To obtain the information to develop a lockout/tagout proposal or to update and expand its present lockout/tagout coverage, the Agency needs detailed responses to the questions listed below.

1. (a) At present, provisions dealing with lockout and tagout in construction appear at such sections in 29 CFR Part 1926 as: Sections 1926.20(b)(3), 1926.54(e), 1926.150(d)(1)(ii), 1926.200(h), 1926.200(i), 1926.252(b), 1926.300(d), 1926.304(a), 1926.352(g), 1926.400(g), 1926.553(a)(i), 1926.553(a)(3)(iii), 1926.555(a)(7), 1926.600(a)(3)(i), and (ii), 1926.906(j), 1926.906(1), 1926.950(d), and 1926.957(b). What would the advantages and disadvantages be of combining these provisions, and any necessary additional lockout coverage, into a generic lockout standard covering all construction equipment and equipment to be installed?

(b) Are the existing construction lockout provisions clear, specific in application, and adequate for dealing with hazards in construction? Describe any problems associated with these provisions or any gaps in lockout coverage.

2. What equipment/machinery used in construction, including batch plant equipment, should be locked out/tagged out? Explain why this equipment/machinery requires lockout, and whether locks and tags, locks only, or tags only are needed.

3. OSHA specifically requests economic data related to lockout procedures, including labor, capital, and maintenance cost data and information on economic benefits.

4. Because of the variety of mechanical, hydraulic, electrical, pneumatic, potential energy and chemical hazards found in construction, it is important to develop clear definitions of the terms involved. (a) How should "lockout," "tagging," "tagout," "isolation," "deenergize," "deactivate," and "interlock," be defined?

(b) What other significant terms are used in connection with lockout procedures, and how should they be defined?

5. To what extent should interlocks be considered lockout devices? Should interlocks be used as the sole means of deactivating equipment? What additional precautions, if any, should be taken when interlocks are used?

6. What procedures or devices are currently in use in construction to lock out/tag out systems that are components of a larger system? For example, to work on an electrical system that powers a hydraulic system, is it necessary to isolate the hydraulic system, including the pump? How can this be

accomplished when there are no separate controls for the pump?

7. What electrical, hydraulic, mechanical, pneumatic, or pressurized equipment used in construction must be worked on while it is still energized, e.g., in troubleshooting or maintenance operations? What precautions are taken to protect employees close to or performing such work?

8. (a) Should specific requirements for locks and tags, such as color, size, shape or material, be standardized and applied throughout the construction industry?

(b) Should certain devices, tags, and symbols be used exclusively for certain operations or equipment? Why?

9. When and how are lock and tags, lock only, and tag only used in the following situations in construction:

(a) To shut down and deactivate a system;

(b) To verify that a system has been deactivated;

(c) To ensure continuity of the lockout procedure during a shift change or when the person responsible for the lockout is not on the site;

(d) To safeguard employees from the hazards of latent (potential) electrical, mechanical, pneumatic, hydraulic, gravity, and spring energy;

(e) To restore equipment to service once the lockout is no longer needed;

(f) To allow for unusual situations, such as removing locks to test a newly repaired or serviced system; and

(g) To protect employee during the installation and testing of new equipment?

10. What criteria should be used to determine how extensive lockout/tagout procedures need to be for specific machines/equipment/worksites? How does each of the following factors affect the choice of procedure:

(a) The time required to perform the work;

(b) The number of employees involved;

(c) The need to use power during the work;

(d) The accessibility of disconnect devices to employees involved in the work;

(e) The use of machine activating controls, such as an operator mode or two-hand control;

(f) The use of blocks, chains, clamps or other devices to physically restrain potentially hazardous materials and movable machine components;

(g) The cost;

(h) Specific injury data; and

(i) Loss of productivity.

If other factors have been overlooked, describe how they might affect the choice of procedure.

11. (a) What training and motivation methods have been successfully used in construction to increase employee awareness of lockout/tagout procedures?

(b) What should written training materials include?

(c) What lockout procedures are best learned in practice sessions?

12. Most lockout procedures involving more than one person require each person in the operation to apply and remove his own lock. However, group lockout procedures are currently being used that involve a large work force and the use of one lock applied by a supervisor responsible for the safety of employees in the activity. Explain how the people working under the direction of such a supervisor are adequately protected by this group procedure. What are the minimum requirements for such a procedure and under what conditions does this method provide adequate safety?

13. A thorough lockout procedures requires careful examination of the equipment involved to detect and then restrain any latent (potential) energy. For example, blocks or physical restraints may be used to immobilize equipment, grounds may be used to discharge electrical energy, and valves may be bled to relieve pressure. What hardware, such as a three-way air valve, is currently available to accomplish these tasks either manually or automatically? What procedures are used in construction to achieve Zero Mechanical State or Zero Energy State?

14. What procedures are used to blank out the flow to the working area of a system conveying or storing fluids or gases? What procedures are used to work on a valveless system?

15. Describe in detail any situations in construction in which it would be impossible to use a positive means (locks or devices) of locking out equipment.

16. (a) Is the respondent aware of injury and accident information that is specifically related to construction lockout/tagout procedures? What documentation is available?

(b) Could these data be organized in tabular form to relate the accidents to the non-existence, misapplication or inadequacy of lockout/tagout procedures, and to the type and severity of the resulting injury?

(c) Are lockout/tagout accidents in construction increasing in frequency and severity?

17. What procedures should be used for machinery that is left running but not in use while the operator is temporarily away from the equipment/machinery?

18. What lockout devices are available to retrofit construction equipment? How expensive and readily available are such devices?

19. Are there lockout procedures and situations in construction that require recordkeeping for effective implementation? Describe in detail.

20. Describe the situations and types of machinery/equipment for which it is appropriate to use physical means of blocking, such as blocks to keep the dozer blade from falling.

OSHA needs specific and detailed answers to the questions raised by this notice and any additional data related to this subject that might be helpful to develop a lockout/tagout proposal. All comments, views, objections, and data should be submitted to the address noted above.

This document was prepared under the direction of Eula Bingham, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, Washington, D.C. 20210.

This Advance Notice of Proposed Rulemaking is issued under section 6 of the Occupational Safety and Health Act of 1970 (84 Stat. 1593; 29 U.S.C. 655) and Secretary of Labor's order No. 8-76 (41 FR 25059).

Signed at Washington, D.C., this 6th day of June 1980.

Eula Bingham,

Assistant Secretary of Labor.

[FR Doc. 80-18189 Filed 6-16-80; 8:45 am]

BILLING CODE 4510-26-M

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[FRL 1515-6]

### Ambient Air Quality Monitoring, Data Reporting, and Surveillance Provisions for the State of Michigan

AGENCY: U.S. Environmental Protection Agency.

ACTION: Proposed rule.

**SUMMARY:** The United States Environmental Protection Agency (USEPA) is proposing to approve Michigan's State Implementation Plan which has been revised to comply with USEPA regulations contained in 40 CFR Part 58. The plan provides for the implementation of a statewide network for ambient air quality monitoring and data reporting. USEPA has determined that the plan meets requirements for quality assurance of the monitoring stations, network design and probe citing criteria, and monitoring methods to be used.